

XVII.—*On the late Dr. Walter's Ornithological Researches in the Taimyr Peninsula.* By H. E. DRESSER, F.Z.S.

A most important paper has recently been published in Russia, in the 'Annuaire du Musée Zool. de l'Acad. Imp. des Sciences de St. Pétersbourg,' entitled "Ornithologische Beobachtungen an der westlichen Taimyrhalbinsel, vom September 1900 bis August 1901." The author was the late Dr. H. Walter, who unfortunately died during the expedition at Kotelny Island, on the 21st of December, 1902. Dr. Walter was medical attendant and ornithologist on board the exploring-vessel 'Sarja.' This vessel was frozen in and wintered on the north-west coast of the Taimyr Peninsula in 76° 68' N. lat. and 95° 9' E. long., from the 13/26 September, 1900, to the 11/24 August, 1901, affording to Dr. Walter an excellent opportunity for collecting specimens of birds and eggs. Thus Dr. Walter succeeded in taking eggs and young in down of the Sanderling (*Calidris arenaria*), Curlew-Sandpiper (*Tringa subarquata*), and Knot (*T. canutus*), the eggs of the last being especially valuable, as they are the first well-authenticated specimens yet obtained. I give the following abbreviated translation of Dr. Walter's notes on the twenty-nine species of birds obtained and observed on this occasion, but the particulars relating to the Knot, Sanderling, and Curlew-Sandpiper are translated *in extenso*. I may remark that it is stated that all the eggs and young in down were most carefully identified, as in every case the parent birds were shot and preserved.

1. *COLYMBUS SEPTENTRIONALIS* was found breeding numerously, chiefly in July.

2. *COLYMBUS ADAMSI* was not uncommon, arriving on the 19 June, but neither eggs nor young birds were seen.

3. *BRANTA BERNICLA* was the only Goose found breeding numerously. It was first seen on the $\frac{30 \text{ May}}{10 \text{ June}}$, and commenced to leave on the 6/19 August. The first nest, containing two fresh eggs, was found on the 8/21 June.

4. *ANSER* sp. inc.—Birjula twice saw a grey Goose in June and July, but could not say of what species it was.

5. *HARELDA GLACIALIS*.—Everywhere common from the 5/18 June onwards.

6. *SOMATERIA STELLERI*.—Only single males were seen and shot at the winter-quarters, on the $\frac{20 \text{ June}}{3 \text{ July}}$, but on the 15/28 August an old female was obtained out of a flock of seven.

7. *SOMATERIA SPECTABILIS*.—Not uncommon on the small Tundra-lakes and on the sea, the first arriving on the 10/23 June. Late in June complete clutches of eggs were found.

8. *LAGOPUS MUTUS*.—First seen on the 17/30 April. At the end of May these birds were in full breeding-play, the males being still in complete winter-dress or with only a few brown feathers on the neck, whereas the females were in full moult. In the middle of July the young were half-grown.

9. *STREPSILAS INTERPRES*.—One of the commonest of breeding birds in the district, appearing on the $\frac{28 \text{ May}}{10 \text{ June}}$. When the young were fledged, in the middle of July, both they and the old birds disappeared, and only stragglers were seen later.

10. *SQUATAROLA HELVETICA*.—Found nesting everywhere, though not in large numbers, on the Tundra. They arrived on the 5/18 June, and on the $\frac{23 \text{ June}}{6 \text{ July}}$ and the 2/15 July nests contained four eggs each. The old birds, even at the nest, were very shy.

11. *EUDROMIAS MORINELLUS*, which was much less common than the preceding species, arrived late in May. On the $\frac{28 \text{ June}}{11 \text{ July}}$ a nest contained three incubated eggs, and another four much incubated.

12. *LIMOSA LAPPONICA*.—Did not breed in the district, but passed over after the $\frac{19 \text{ June}}{2 \text{ July}}$ in large flocks, which were composed of old males and females. After the $\frac{30 \text{ July}}{12 \text{ Aug.}}$ a few young birds were seen.

13. *CALIDRIS ARENARIA* appeared about the $\frac{28 \text{ May}}{10 \text{ June}}$, and in

the middle of June one could observe its breeding-evolutions. The male rises with quivering wings about ten feet above the ground, at the same time uttering a harsh note, *trrr-trrr-trrr*, and then descends. The nests, found late in June and early in July, contained four eggs each in three cases and three eggs in one case. The nest was placed, unlike that of the other Waders, which affected the grass-covered portions of the Tundra, between bare clay lumps on moss, and consisted of a shallow depression lined with a few dry straws and a white tangle. In two cases the male, and in two the female, was incubating. On the 16/29 July, when the young in down were taken, the male shewed anxiety, but the female was not seen. During the breeding-season some of these birds wandered about in small flocks. This species remained until the end of August.

Description of the Eggs of Calidris arenaria.

No. 75. Blunt pyriform, fine-grained, with a faint gloss. Ground-colour pale yellowish white, with a very pale greenish tinge and somewhat marked with small yellowish-brown and dark brown spots; a few indistinct light violet-grey markings; at the larger end a few blackish dots and streaks.

The measurements of four incubated eggs ($\frac{25 \text{ June}}{8 \text{ July}}$) are:—

a. 35.8×24.9 mm.

b. 33.8×24.7 „

c. 36.6×24.4 „

d. 34.1×24.9 „

No. 76. Four slightly incubated eggs ($\frac{25 \text{ June}}{8 \text{ July}}$):—

e. 34.2×25.9 mm. }

f. 34.1×26.1 „ }

g. 33.1×24.4 „ }

h. 36.6×25.5 „ }

Resemble No. 75, but the spots are larger and more scattered.

No. 87. Three slightly incubated eggs ($\frac{30 \text{ June}}{13 \text{ July}}$):—

i. 37.5×24.7 mm. }

j. 36.8×24.2 „ }

k. 38.2×24.7 „ }

Resemble No. 75, but the spots are fewer and closer at the larger end.

No. 92. Four incubated eggs (3/16 July) :—

<i>l.</i>	36.2 × 25.0 mm.	} Resemble No. 75, but the arrangement of the spots is as in No. 87 and the ground-colour is of a clearer green.
<i>m.</i>	37.0 × 24.7 „	
<i>n.</i>	37.6 × 25.3 „	
<i>o.</i>	37.4 × 25.3 „	

14. *TRINGA MINUTA* arrived on the 1/14 June. It breeds in the latter half of June, and remains until late in the autumn.

15. *TRINGA STRIATA* arrived on the $\frac{27 \text{ May}}{9 \text{ June}}$, and as early as the 5/18 June a nest containing eggs was found. It remains until late in the autumn.

16. *TRINGA SUBARQUATA*.—The Curlew-Sandpiper arrived on the $\frac{31 \text{ May}}{13 \text{ June}}$ and nested numerously in the district. Early in June they chased each other in threes and fours over the Tundra. The nests were placed in grassy places, and consisted of shallow depressions lined with a few dry straws and a white tangle. In the middle of June the nests contained full clutches of eggs. On the approach of a person the sitting bird, warned by its mate, leaves the nest quickly, and both birds remain very passive and unobtrusive. Usually the observer has to wait long before the female decides to return to her nest and thus betray its position, and often he has to wait in vain. Some individuals of this species also wander about in small flocks during the breeding-season, while later both old and young collect in large flocks and remain until late in the autumn.

Description of the Eggs of Tringa subarquata.

No. 60. Blunt pyriform, fine-grained with a faint gloss. Ground-colour pale yellowish white with a greenish tinge, with large and small brown to blackish-brown spots, which are more confluent, and to some extent quite confluent at the thick end, and a few washed-out pale violet-grey spots.

No. 60. Four fresh eggs (11/24 June) :—

<i>a.</i>	36.7 × 25.7 mm.
<i>b.</i>	36.6 × 25.0 „
<i>c.</i>	38.3 × 25.4 „
<i>d.</i>	36.9 × 25.7 „

No. 71. Four fresh eggs ($\frac{23 \text{ June}}{6 \text{ July}}$):—

<i>e.</i>	37.4 × 25.7 mm.	} Resemble No. 60.
<i>f.</i>	37.0 × 25.6 "	
<i>g.</i>	39.6 × 25.6 "	
<i>h.</i>	37.8 × 26.1 "	

No. 67. Four incubated eggs ($\frac{18 \text{ June}}{1 \text{ July}}$):—

<i>i.</i>	35.4 × 26.2 mm.	} Resemble No. 60.
<i>j.</i>	34.6 × 25.1 "	
<i>k.</i>	35.7 × 25.7 "	
<i>l.</i>	35.0 × 26.0 "	

17. TRINGA CANUTUS.—This species was also by no means a rare breeding bird in the district. From the $\frac{27 \text{ May}}{9 \text{ June}}$ its loud whistle was to be heard and its pretty nuptial flight observed. It executed, now with a trembling motion of the wings, now with motionless wings gliding high in the air, wide circles, continually uttering its varied whistle. On the $\frac{9}{22}$ June, the $\frac{17}{30}$ June, and $\frac{29 \text{ June}}{12 \text{ July}}$, nests, each containing a single fresh egg, were taken (we were compelled by circumstances to satisfy ourselves with incomplete clutches), and on the $\frac{23 \text{ June}}{6 \text{ July}}$ a nest was found with three slightly incubated eggs. The eggs vary greatly in form, size, and coloration. The nests were placed in grassy places on the Tundra, and consisted of a shallow depression lined with a few dry grass-bents and a white tangle. At the end of June and in the middle of July we secured three lots, each of four young in down. The nests were all found by accident, for the incubating male or female did not leave the nest until almost trodden on, when they puffed out their feathers until they appeared almost double their normal size. They practiced the usual wiles to get the intruder away, and one female even let herself be caught by a dog. The male was always most careful of the young, whereas the female, when in the vicinity, had the appearance of an uninterested spectator. Of this species also, during the breeding-season, small flocks

wandered about. They joined the young birds later on and formed large flocks, which remained until late in the autumn.

Description of the Eggs of Tringa canutus.

No. 56. Slightly defined pyriform, fine in grain, slightly glossy. Ground-colour pale clay, marked with some large and a few small dirty-brown spots and a few small washed-out pale violet-grey spots.

One fresh egg (9/22 June):—

a. 44.5×30.5 mm.

No. 64. Slightly defined pyriform. Ground-colour pale yellowish white with a greenish tinge, sparingly marked with tolerably large and smaller dirty-brown to blackish-brown and washed-out pale violet-grey spots, which are closer together at the blunt end.

One fresh egg (17/30 June):—

b. 49.8×33.8 mm.

No. 70. Of the usual oviform shape. Ground-colour pale green, closely marked with small yellowish-brown to blackish-brown spots, which are chiefly drawn out on the long axis of the egg, and are collected closer, and to some extent confluent, at the blunt end.

Three slightly incubated eggs ($\frac{23 \text{ June}}{6 \text{ July}}$):—

c. 42.3×29.1 mm.

d. 41.7×29.2 ,,

e. 44.3×29.7 ,,

No. 84. Similar to No. 64.

One fresh egg ($\frac{29 \text{ June}}{12 \text{ July}}$):—

f. 42.2×31.6 mm.

18. PHALAROPUS FULICARIUS was very common. It appeared on the $\frac{30 \text{ May}}{12 \text{ June}}$ in smaller and larger bands, and remained until the end of August.

19. STERNA MACRURA arrived very late on the 13/26 June, and nested here and there in the district.

20. *LARUS AFFINIS* Reinh.—This was the only Gull which occurred in large numbers and bred in the district. The nests were always placed on the large stones which stand up out of the shallow Tundra-lakes. They consisted of a massive structure of peat and clay, and were profusely lined with moss and goose-feathers, chiefly flight-quills, which gave the nest a peculiar prickly appearance. In the middle of June the nests contained two or three eggs. The male incubated and was very careful of the nest, whereas the female kept more out of the way.

21. *LARUS GLAUCUS* was very rare, and we did not find its breeding-places.

22. *PAGOPHILA EBURNEA* was only seen once in September and once in July, and evidently does not breed here.

23. *STERCORARIUS POMATORHINUS* and (24) *STERCORARIUS PARASITICUS* were both very common, appearing at the end of May, but disappearing almost entirely when the young were able to fly, so that at the end of July only occasional stragglers were to be seen.

25. *STERCORARIUS CREPIDATUS* I think I saw once in the spring, but am not certain, as none were shot. It certainly does not breed in the district.

26. *NYCTEA SCANDIACA*.—The Snowy Owl occurs singly all over the Tundra. We found no nests, but I think that I saw fledged young at the end of July.

27. *ANTHUS CERVINUS*.—Although I carefully watched all the small birds met with, I only saw and shot one example of this species, on the 5/18 June.

28. *CALCARIUS LAPPONICUS* appeared on the $\frac{31 \text{ May}}{13 \text{ June}}$, and was common everywhere. In the middle of June its clutches of eggs were complete.

29. *PLECTROPHANES NIVALIS*.—From the $\frac{19 \text{ April}}{2 \text{ May}}$ to the

middle of May only stragglers were seen. In the second half of May the main body arrived, and after the 10 June the clutches of eggs were complete. Fledged young were seen in the first half of July.

In conclusion, I may add that Dr. Walter's collection is now in the Zoological Museum at St. Petersburg.

XVIII.—*List of the Birds of the Quangtung Coast, China.*

By J. C. KERSHAW, F.Z.S.

The following list of birds is the result of about a year and a half's collecting (October 1901 to June 1903) in the districts round Hongkong and Macao, mostly at the latter place. For the identifications I am mainly indebted to Mr. F. W. Styan. The list of Ducks might be very considerably increased, but I have included only those of which I have shot specimens myself. Attention was chiefly paid to the land-birds, but on the whole the district is a very poor one for trees, the level ground being densely populated and well cultivated, whilst the hills are for the most part barren or sparsely wooded with firs, which are cut periodically for firewood, and never allowed to attain any considerable size. Almost the only patches of wood are behind the villages, and consist principally of banyan and bamboo, with scrubby undergrowth.

The country is hilly and broken, the granite hills rising from one to two thousand feet above sea-level, and their highest points reaching to some three thousand feet.

The winter, from about November to February inclusive, is the dry season; hot on the whole, but with short spells of really cold weather, generally during January and February, when the thermometer occasionally descends to 50° F. in the daytime; whilst the spring and summer are hot and very damp. The spring months are usually the rainiest period. Macao is about forty miles south-west of Hongkong, on the opposite side of the West River estuary. Hongkong is just within the tropics, the line passing through Swatow and about equally dividing Formosa.